

How do we get from here

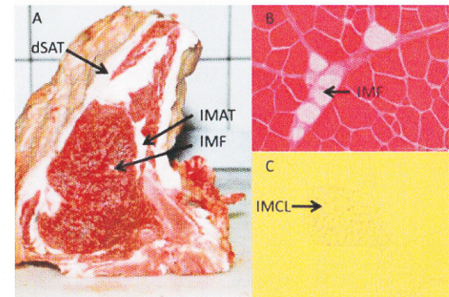


to here?



What are we looking for?

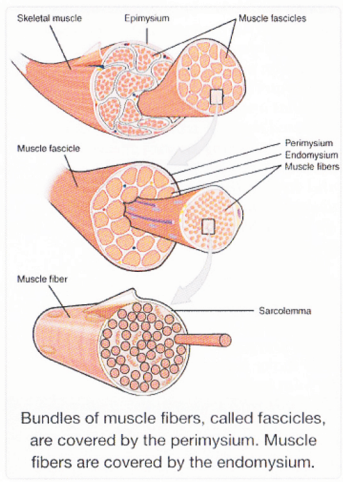
At birth we are born with a set number of bundles within our muscle make-up. We never lose nor do we gain any new bundles. It is a finite amount per animal.



Bundles and their tissue analysis allow us to identify tenderness within the animal.

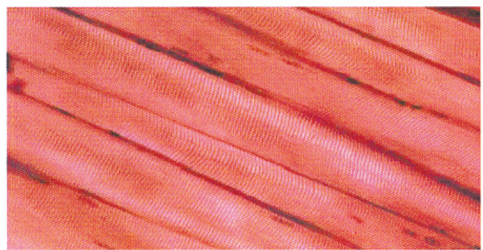
A. Intramuscular fat of the steak gives us flavor and juiciness.

B. Identified adipose tissue shows that the fat lies between the bundles.



Bundles of muscle fibers, called fascicles, are covered by the perimysium. Muscle fibers are covered by the endomysium.

We see bundles, fat and fascicles all separated by a sheath or membrane.



Muscle Structure

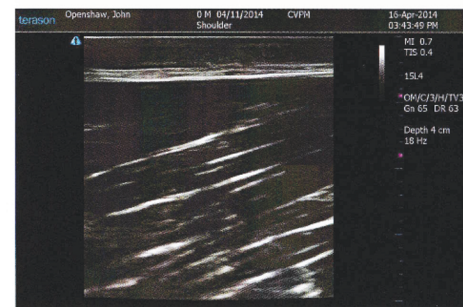
The tissue analysis determines the tenderness ratio. This does not detract from its natural breakdown of the various types of tissue within the muscle make-up. It adds credibility to a part of the breakdown of tissue post mortem based on the muscle and tissue make-up. It aids in how fast the breakdown occurs based on the muscle mass, volume, density, and tensile strength. All this

has a tissue analysis that counts for a large portion of what we consider tenderness. Along side our own natural tenderizers that are found within the cellular make-up.

Now the question is, how do we identify it on a live animal and make it profitable for both the producer and the consumer? Nobody on either end wants a bad experience -- in the field or on the plate.

With the use of the most current imaging technology the ultrasound images can be measured by a trained and certified technician to determine bundle size and tenderness ratio. This application can be done live chute side or on hanging carcasses.

The next image illustrates tissue analysis that we are capable of capturing.



This is done with an accuracy level of 74%

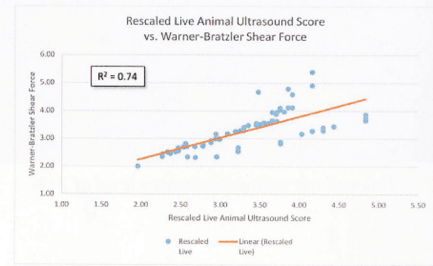
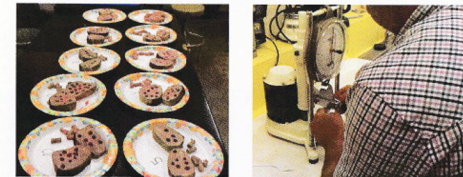
The palatability factor consists of five components that are:

1. Tenderness
2. Juiciness
3. Flavor
4. Aroma
5. Color

The consumer generally considers tenderness the most important palatability factor. The meat industry has made great strides in improving and identifying tenderness both through genetics and meat science technology.

Once the scan session and evaluation have been completed you are then given a report that consists of three elements that you can have done.

1. Tender scan
2. Warner-Bratzler Shear Force test
3. DNA test to validate consistency within your herd.



The Warner-Bratzler Shear Force test is the gold standard of the industry on how we determine tenderness in our meat.